

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks are requested. By this amendment, Applicants have amended claims 5 and 9. Claim 4 has been canceled. No new matter has been added.

Claims 1-5, 7-12, and 14-18 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The Examiner asserts that claim 4 contradicts claim 1 because claim 4 recites that "at least one partner of the bioaffinity pair is immobilized on the membrane of the bacterial ghosts and on the carrier material". Applicants submit that claim 4 has been canceled, thus rendering the rejection of claim 4 moot. As a result, claim 5, previously depending from claim 4, has been amended to depend from claim 1. Applicants request that the rejection of claims 4 and 5 be withdrawn in view of the amendments.

The Examiner asserts that claim 9 is indefinite because of the recitation that the carrier material "is" lipid vesicles. The Examiner seeks clarification of what is being claimed because of the use of the singular "is" and the plural "vesicles" in describing the carrier material. Applicants submit that claim 9, as amended, recites "carrier materials are lipid vesicles", thus obviating the rejection. Applicants request that the rejection of claim 9 be withdrawn in view of the amendment.

The Examiner asserts that claim 15 is indefinite because of the recitation of the closure of a "lysis tunnel" in claim 1. Applicants submit that the disclosure in the paragraph bridging pages 9 and 10 of the specification states that the "closed bacterial ghost can contain an initially partially intact membrane, i.e. a continuous lipid layer which separates the interior of the ghost from the environment and which is preferably a continuous double lipid layer." Further, the disclosure of sections 2.1 and 2.2 on pages 16-18 of the specification describes how by closing the lysis tunnel with the carrier material, an intact membrane may be constituted. Thus, Applicants submit that it is clear and definite how a partially intact bacterial membrane can be closed by carrier materials to form the claimed closed bacterial ghost.

With regard to claim 1, the Examiner asserts that it is not clear where all of the P1 partners are placed, on only the lysis tunnel or all over the membrane. Further, the

Examiner states that if the P1 partners are located all over the membrane, it is unclear how one closes the ghost if the P1-P2 interaction occurs at P1 position on the membrane other than at the lysis tunnel. Applicants would like to point out the examples of the present invention disclosed in examples 2.1 and 2.2 on pages 16-18 of the specification wherein closed bacterial ghosts are produced by using biotinylated ghosts in which the biotin group is fused with the E-protein. These ghosts contain a particularly high density of biotin molecules in the region of the lysis tunnels, whereby a specific closure with streptavidin-labeled membrane vesicles (2.1) or biotinylated membrane vesicles by way of a streptavidin bridge (2.2) is possible. Moreover, Applicants submit that claim 1 is directed to "a method for preparing closed bacterial ghosts" and recites that closure is mediated by partners (P1) that are anchored to the lysis tunnel and partners (P2) that are anchored to the surface of said carrier materials. Thus, it does not matter if there are P1 partners all over the membrane surface or only at the lysis tunnel because, ultimately, closure can only be mediated by a P1-P2 interaction at the lysis tunnel. Therefore, Applicants submit that claim 1 is definite and clear and request that the rejection be withdrawn. Claims 2, 3, 5, 7-12, and 14-18, depending from claim 1 are believed to be allowable for at least the above reasons.

Similarly, with regard to claim 20, the Examiner asserts that it is not clear where all of the P1 partners are placed, on only the lysis tunnel or all over the membrane. Applicants submit that claim 20 is directed to "a method for preparing closed bacterial ghosts" and recites that closure is mediated by P1-P2-P1 interactions where partners (P2) of the bioaffinity pair are present in free form and partners (P1) are anchored to the lysis tunnel and to the surface of said carrier materials. Thus, it does not matter if there are P1 partners all over the membrane surface or only at the lysis tunnel because, ultimately, closure can only be mediated by a P1-P2-P1 interaction at the lysis tunnel. Therefore, Applicants submit that claim 20 is definite and clear and request that the rejection be withdrawn.

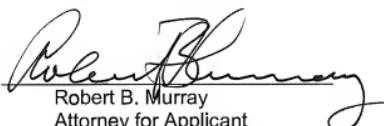
In view of the foregoing amendments and arguments, it is submitted that the present application is now in condition for allowance. Reconsideration and allowance of the pending claims are requested.

The Director is authorized to charge any fees or credit any overpayment to Deposit Account No. 02-2135. A Notice of Allowance is respectfully requested. Early and favorable action is awaited.

The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,

By



Robert B. Murray
Attorney for Applicant
Registration No. 22,980
Rothwell, Figg, Ernst & Manbeck
1425 K Street, N.W., Suite 800
Washington, D.C. 20005
PH: 202-783-6040
FAX: 202-783-6031

RBM/AH
1587787